



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,376	09/30/2003	John A. Hughes	240720US6YA	4362
22850	7590	11/20/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.			GRAMAGLIA, MAUREEN	
1940 DUKE STREET			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			1792	
			NOTIFICATION DATE	DELIVERY MODE
			11/20/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Advisory Action Before the Filing of an Appeal Brief</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/673,376	HUGHES ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Maureen Gramaglia	1792

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 10 November 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a)  The period for reply expires 3 months from the mailing date of the final rejection.

b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

(a)  They raise new issues that would require further consideration and/or search (see NOTE below);

(b)  They raise the issue of new matter (see NOTE below);

(c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1,3,11,18,20,22 and 40-45.

Claim(s) withdrawn from consideration: 2,4-10,12-17,19,21 and 23-39.

#### AFFIDAVIT OR OTHER EVIDENCE

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.

12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13.  Other: See Continuation Sheet.

/Parviz Hassanzadeh/  
Supervisory Patent Examiner, Art Unit 1792

/Maureen Gramaglia/  
Examiner, Art Unit 1792

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 10 November 2009 have been fully considered but they are not persuasive.

In regards to Applicant's argument that Hasegawa et al. does not teach or suggest an erodable focus ring component, Examiner disagrees. Hasegawa et al. teaches a focus ring that erodes when exposed to plasma. See at least Column 9, Lines 36-47 and Column 10, Line 65 - Column 11, Line 2. A material which does not cause any reaction product that is substantially adsorbed on an etching target includes a material that forms a reaction product, i.e. an erodable passive material.

In response to applicant's arguments against the references individually, specifically that Kumar alone does not teach the entirety of the claimed invention, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In regards to Applicant's arguments that including the plasma catalyst of Kumar in an erodable focus ring would deform the local electric field and thereby effect the plasma uniformity, and that active species would be lost by etching the passive polymer to release the active component, it is very respectfully noted that this argument must be considered mere attorney speculation not supported by evidence. In *re Scarborough*, 500 F.2d 560, 566 182 USPQ 298,302 (CCPA 1974). Moreover, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, Examiner has presented a cogent technical reasoning as to why one of ordinary skill in the art would have found it obvious to combine the teachings of Hasegawa and Kumar to arrive at the claimed invention, specifically as motivated by the teachings of Kumar (Column 11, Lines 1-54) to allow for the delivery of any desirable additive that a user wishes to add to the plasma, including a plasma catalyst or dopant. There is no reason to expect that any more active species would be lost from the plasma than would already be lost in the apparatus of Hasegawa by collision with the focus ring. Moreover, it would be well within the mechanical skill of one of ordinary skill in the art to make any necessary minor tweaks to the plasma system, such as adjusting the power, to attain a desired etch rate and uniformity, and to incorporate the teachings of Kumar.

In regards to Applicant's argument that incorporating the teachings of Kumar of the focus ring comprising a non-electrically conductive coating would be contrary to the teachings of Hasegawa, since Hasegawa requires that the focus ring be electrically conductive, this argument is not persuasive. While Hasegawa teaches that the bulk body of the focus ring is made of a conductive material, Hasegawa is silent as to whether the focus ring comprises a coating over any surface of an electrically insulative material. In regards to Applicant's argument that the use of the electrically insulative coating of Kava is contrary to an erodable focus ring as claimed, since Kava teaches that the coating is to stabilize and retain residues, and is not an erodable surface, this argument is not persuasive. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Kava suggests that an electrically insulative coating is suitable for use on a focus ring, but one of ordinary skill in the art, in combining the teachings of Hasegawa, Kumar, and Kava, could embody those teachings in multiple ways, such as only placing the coating on a surface of the focus ring not required to erode and not placing the coating on a surface intended to erode. It is noted that the feature that the focus ring is formed only of a passive insulating polymeric material is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's remaining arguments were addressed in the last office action..

Continuation of 13. Other: The claims would be rejected under the same grounds of rejections as set forth in the Final Rejection mailed 11 August 2009, since the amendment only corrects an informality of Claim 18.